

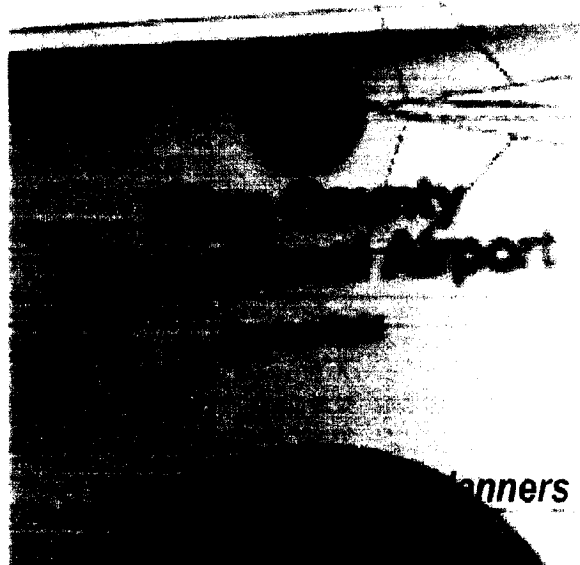
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**Design Services for the**

**King County International Airport  
Runway 13L-31R Overlay**

**RFP No. E93066E**

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## Firm Profile

W&H Pacific



Completed Airport Projects

- **Consulting engineering firm**
  - Airports
  - Roadways
  - Survey
  - Energy and communications
  - Land development
- **Anchored in the Northwest since 1968**
  - Washington (headquarters)
  - Oregon
  - Idaho
- **275 employees**
  - 52 professional engineers
  - Vast airport experience

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# Specialized Experience and Technical Competence



**FAA**

**Civil Engineer**  
Karen Miles, P.E.

**W&H Pacific**

**Project Manager**  
Mark Napier, P.E.

**W&H Pacific**

**QA/QC**  
Rainse Anderson, P.E.

**Topographic Survey**

**W&H Pacific**  
**Project Surveyor**  
Larry Signani, P.L.S.  
**Crew Chief**  
Jack Goltiani

**Geotechnical Investigations**  
**Construction Testing**

**GN Northern**  
**Engineering Geologist**  
Amjad Khan, P.G.  
**Construction Testing**  
Wiley Yeakey

**Civil Design**

**W&H Pacific**  
**Project Engineer**  
David Williams, P.E.  
**Civil Designer**  
Lorelei Olmscheid, E.I.T.  
**Civil Engineer**  
Mark Van Wormer, P.E.

**Construction Management**

**W&H Pacific**  
**Construction Manager**  
Sam Richard  
CMTS, Inc.  
**Construction Inspector**  
Wayne Lowell  
**Electrical Inspector**  
Henry Penselin

**Electrical Design**

**Elcon Associates**  
**Electrical Engineer**  
Gerry Schmitt, P.E.

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### **Runway Overlay**

- **Grooving**
- **A4 and A7 Pavement Distress**
- **A4 Alignment**
- **Threshold Displacements**
- **REILs and Signs**
- **Construction Phasing**

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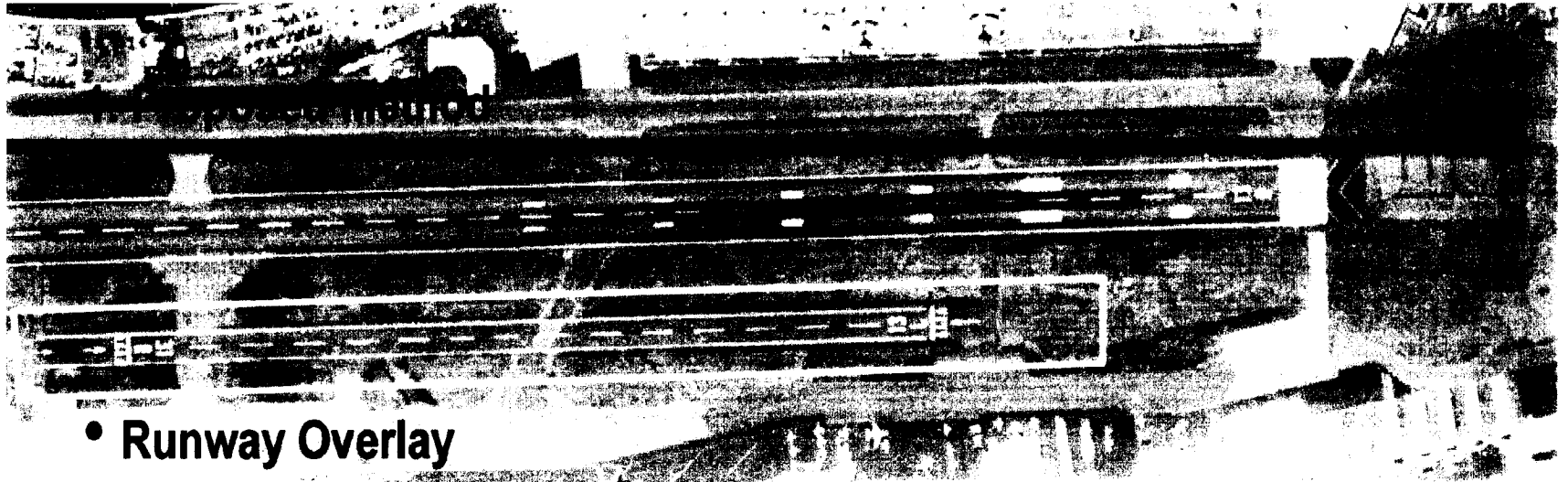
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- **Runway Overlay**

- Issues

- Surface preparation
    - Grade tolerances, existing to finished
    - Mix design



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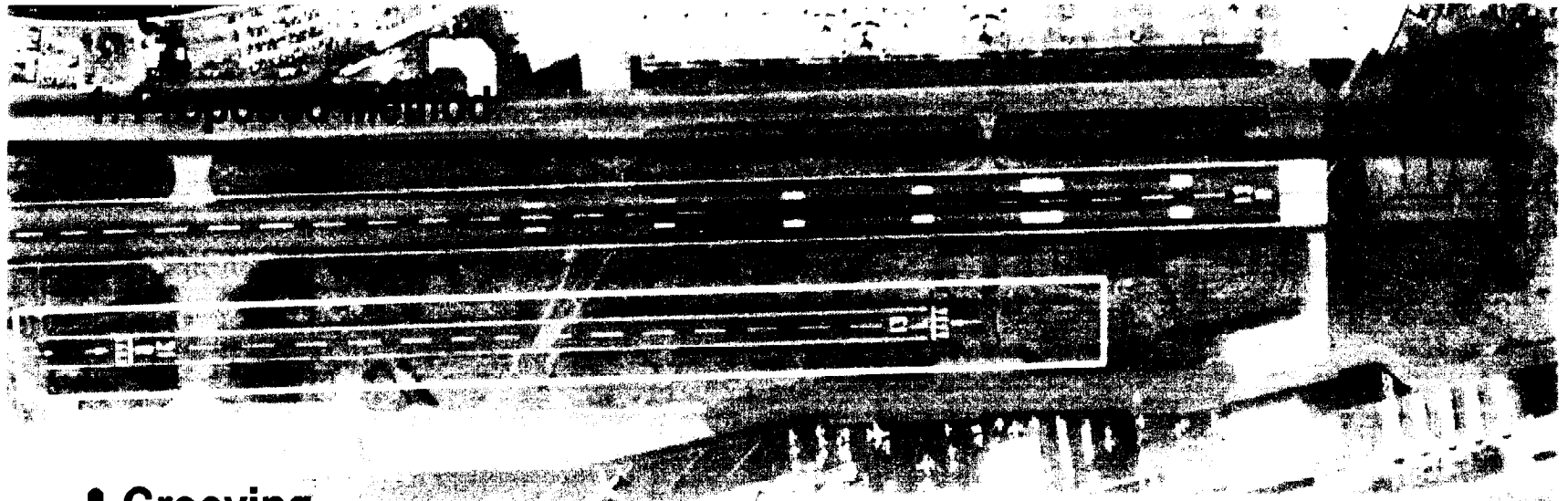
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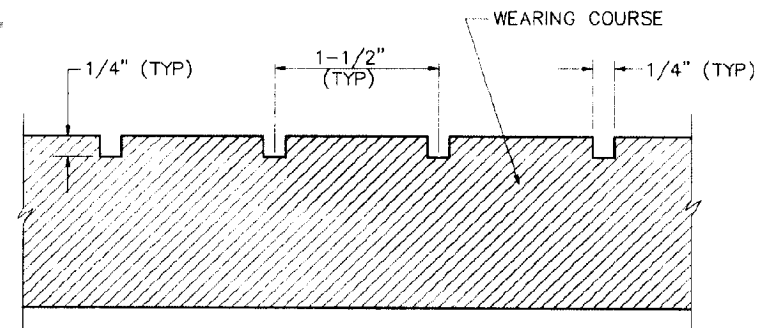




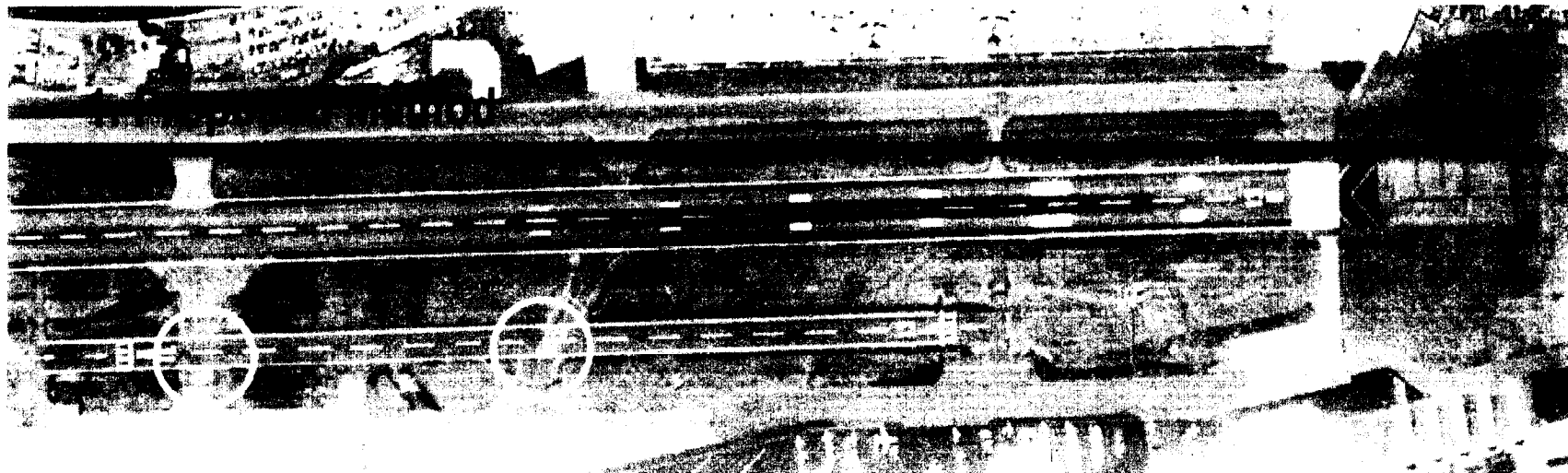
- **Grooving**

- **Issues**

- Layout and alignment
- Function and appearance



**SECTION — PAVEMENT GROOVING**  
 GROOVES PERPENDICULAR TO RUNWAY  $\hat{C}$   
 NOT TO SCALE



- **A4 and A7 Pavement Distress**

- Issues

- Wheel path settlement



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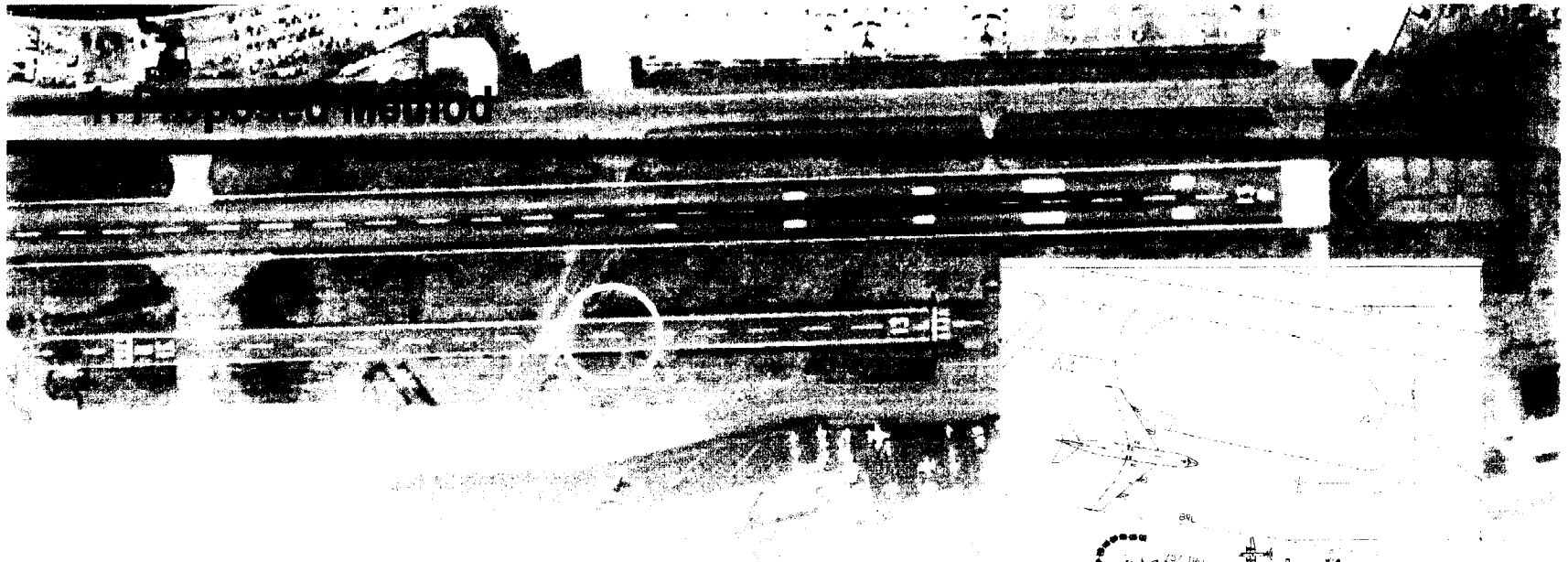
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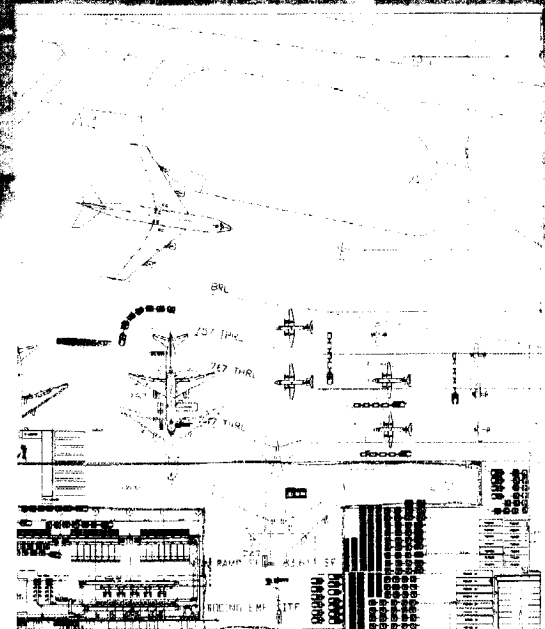




## • A4 Alignment

### • Issues

- Acute angle from 31L to UPS site
- Effects on taxiing time and efficiency
- Effects of turning upon pavement performance
- Coordination with UPS improvements



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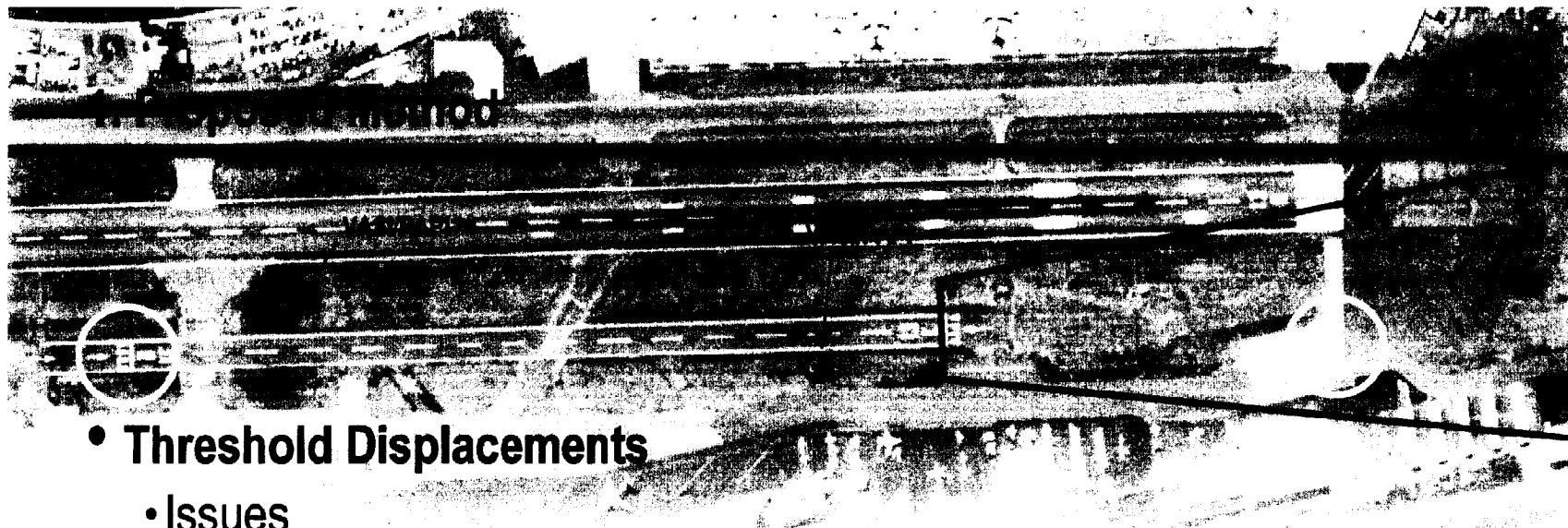
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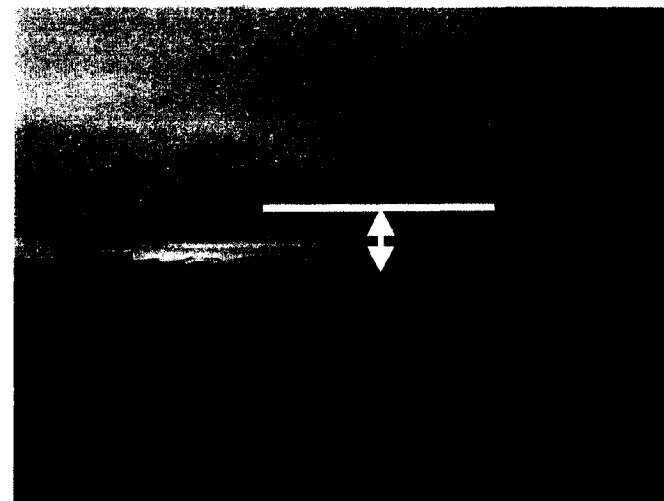


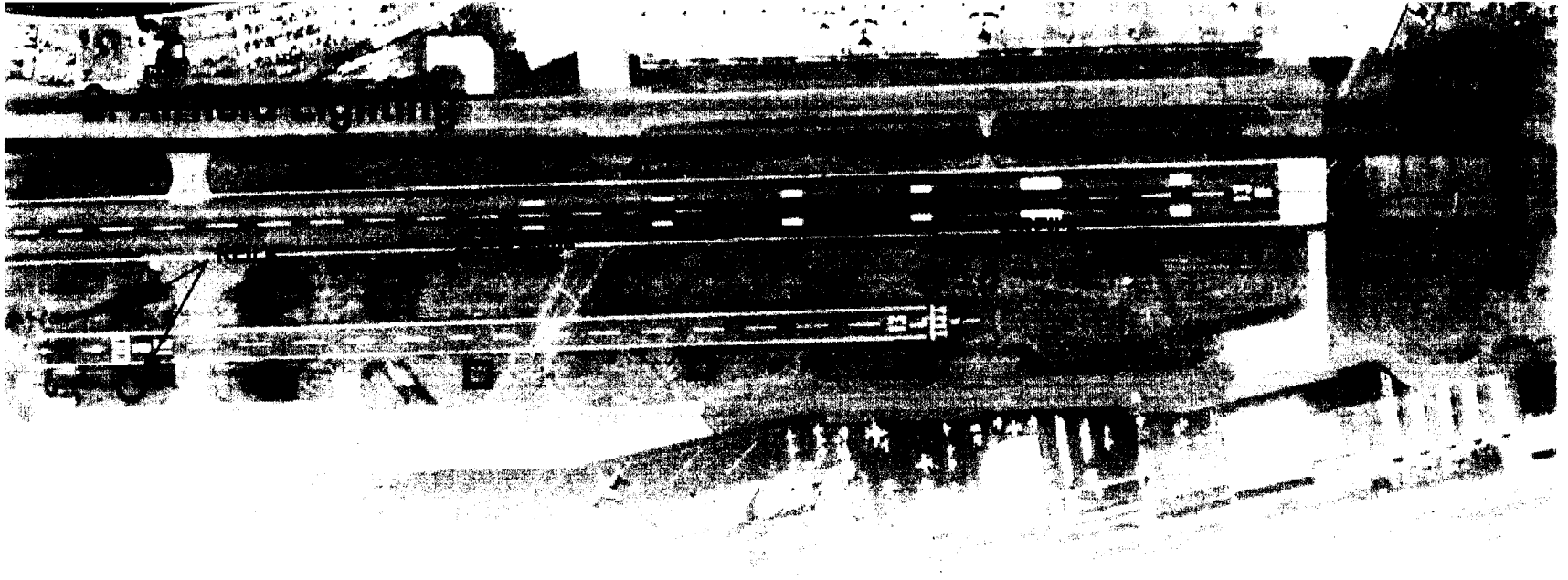


## • Threshold Displacements

### • Issues

- Critical aircraft at A1 holding position and 13L threshold location
- relocation of VASIs, should threshold location change
- Replace VASIs with PAPIs

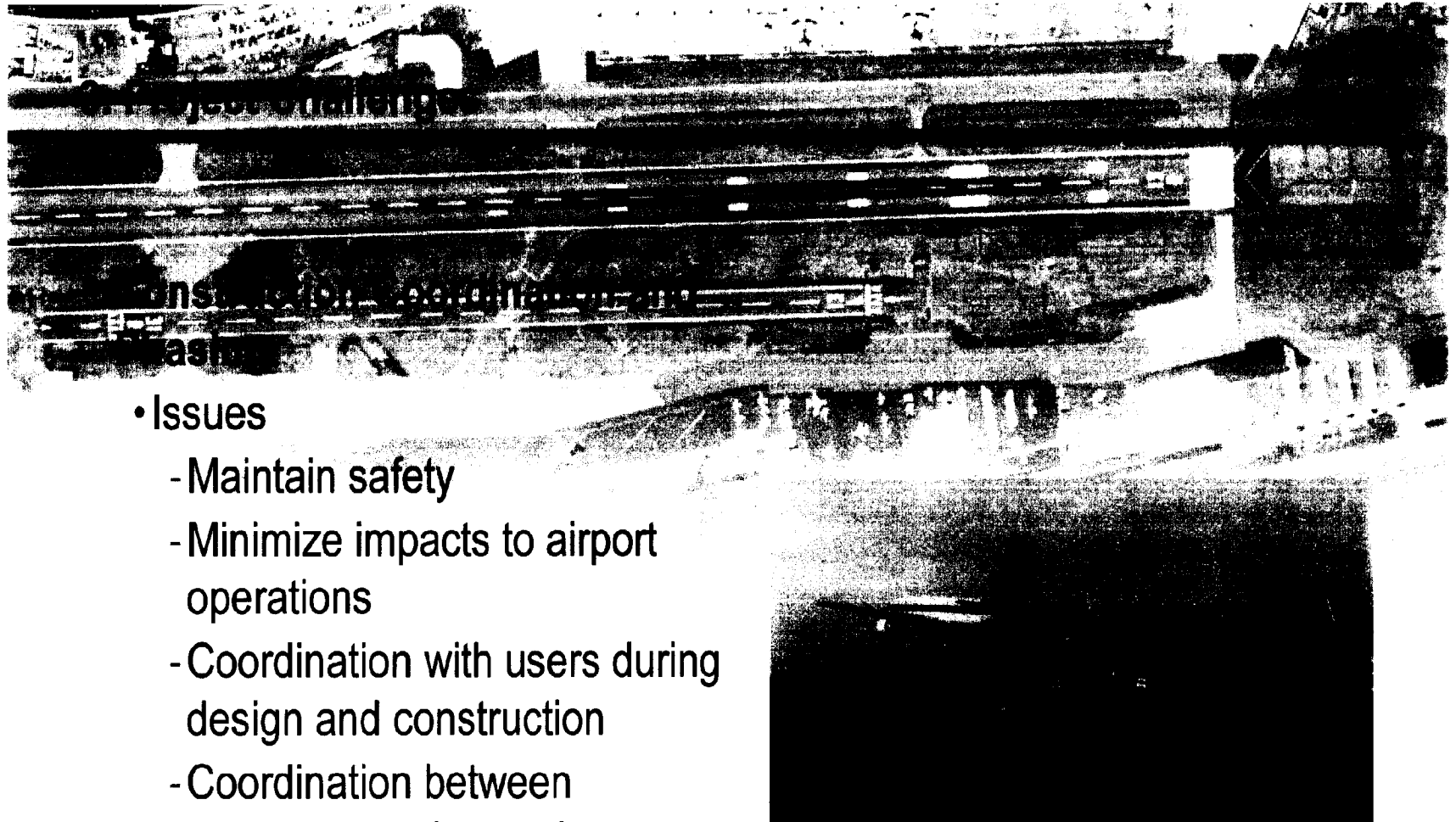




- **REILs and Signs**

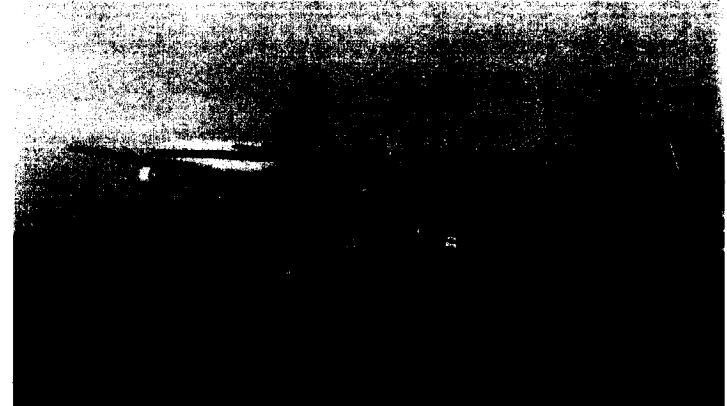
- Issues

- Two sets of DTG signs required due to threshold displacements
    - Increased load on runway lighting circuit
    - REIL controls



#### • Issues

- Maintain safety
- Minimize impacts to airport operations
- Coordination with users during design and construction
- Coordination between contractor and consultant team



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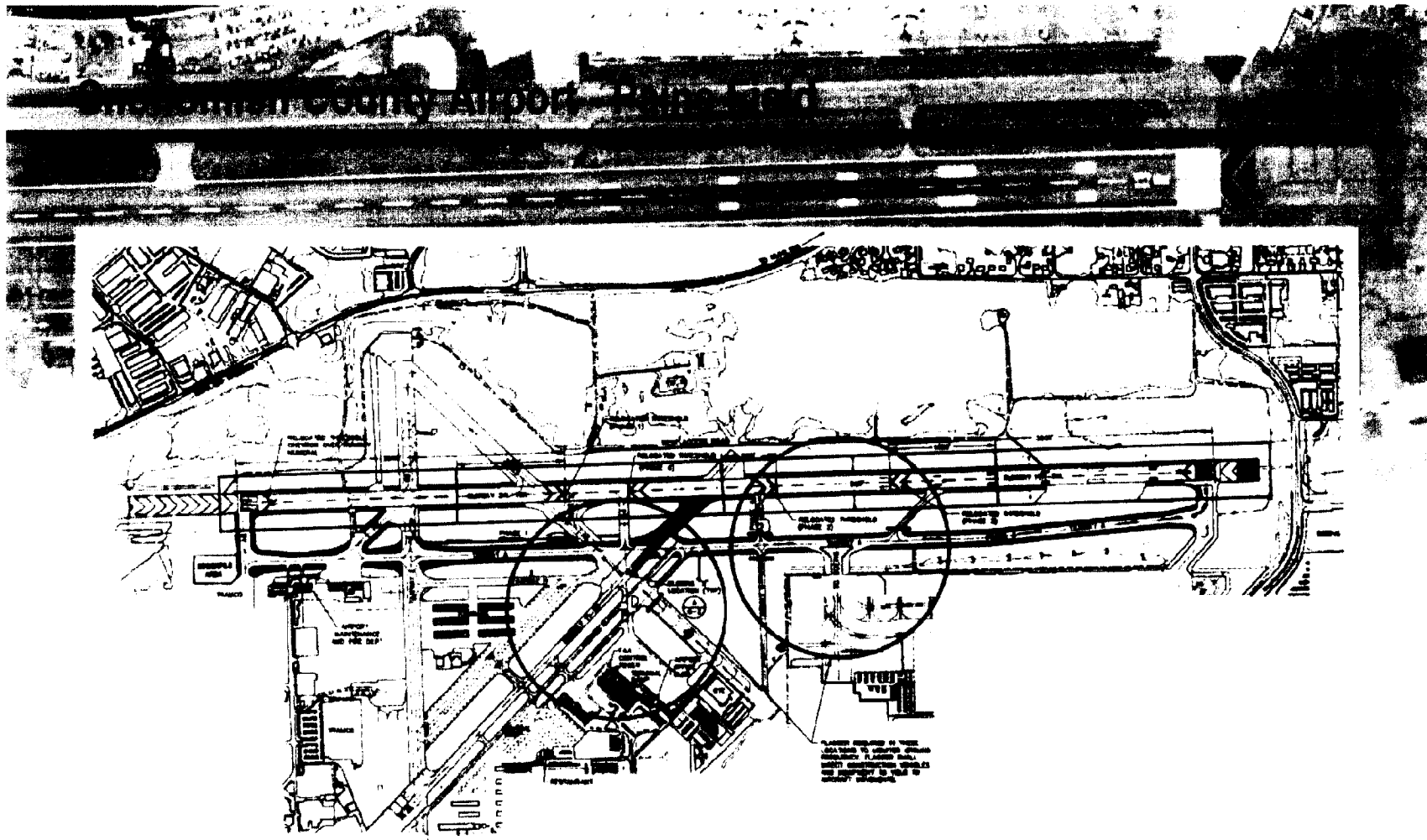
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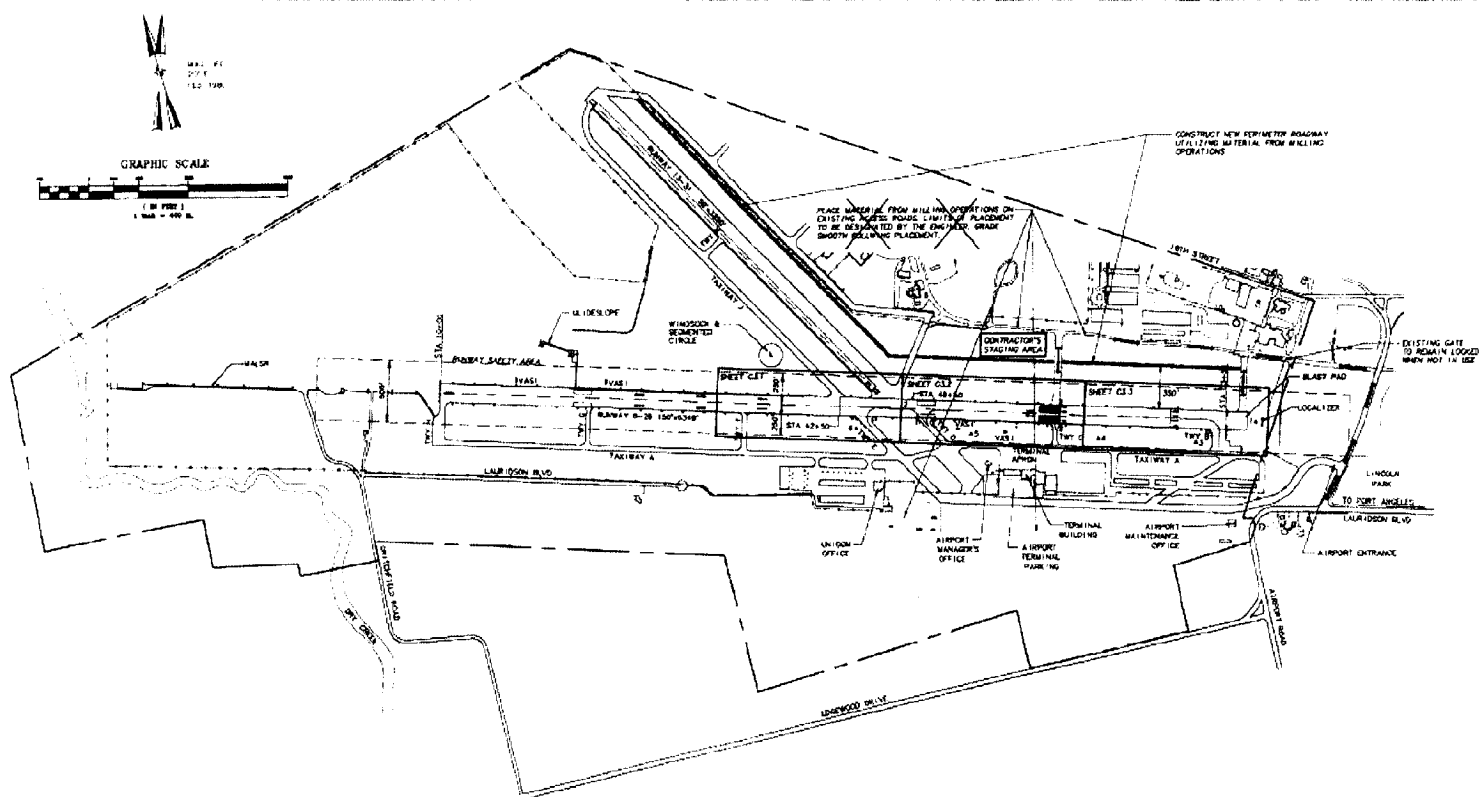
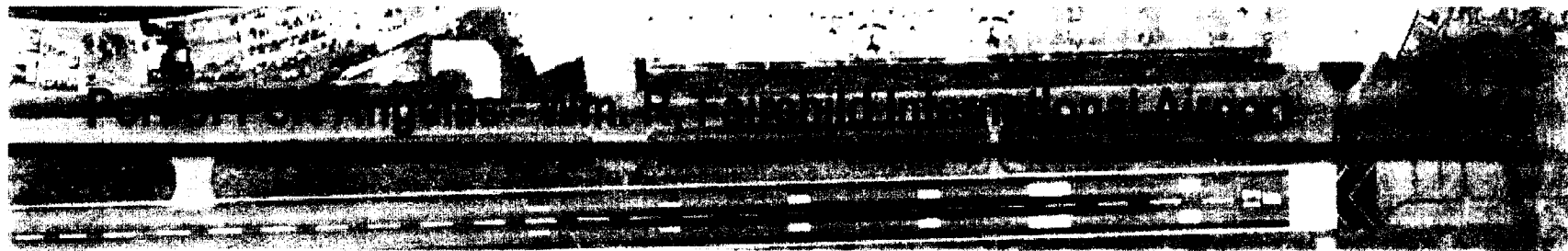
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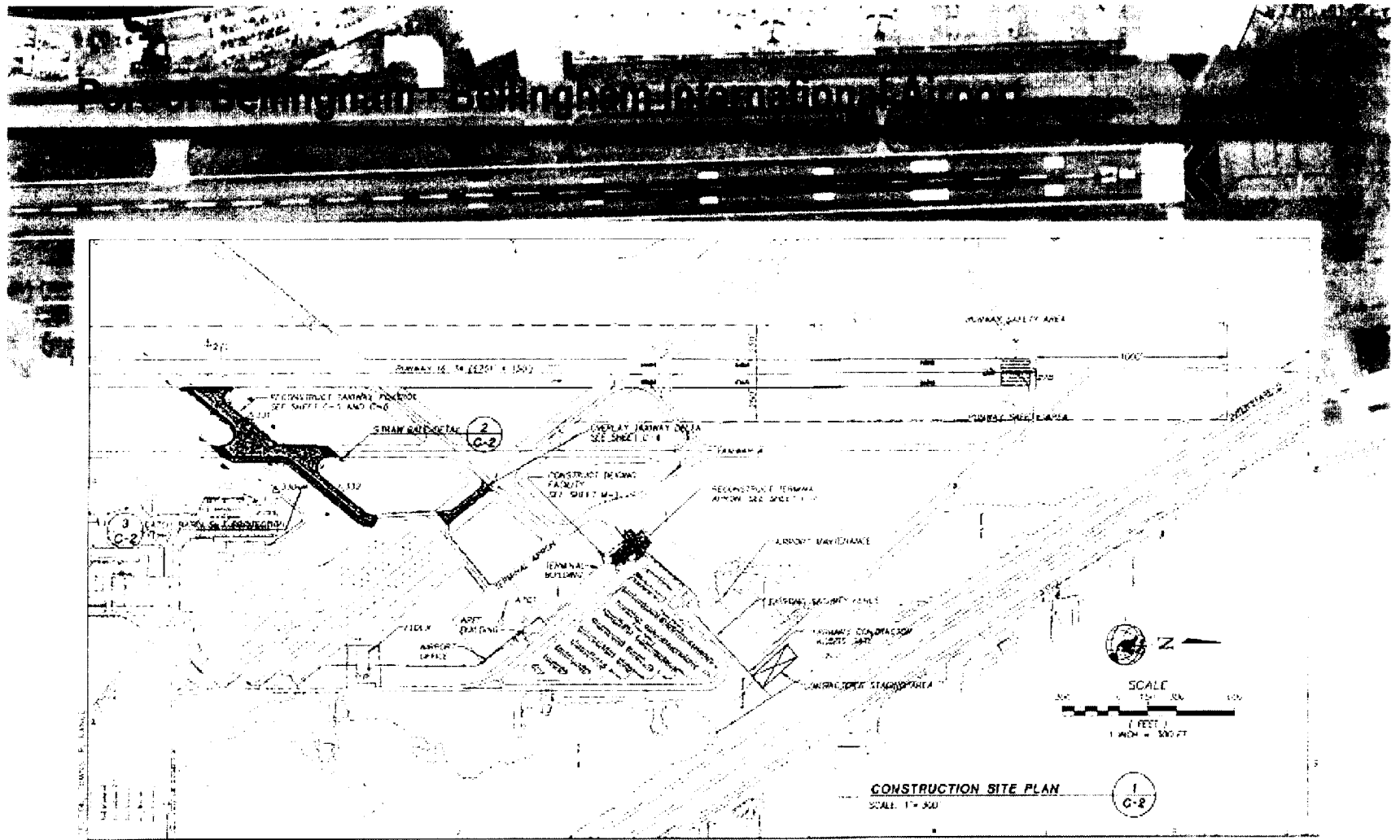
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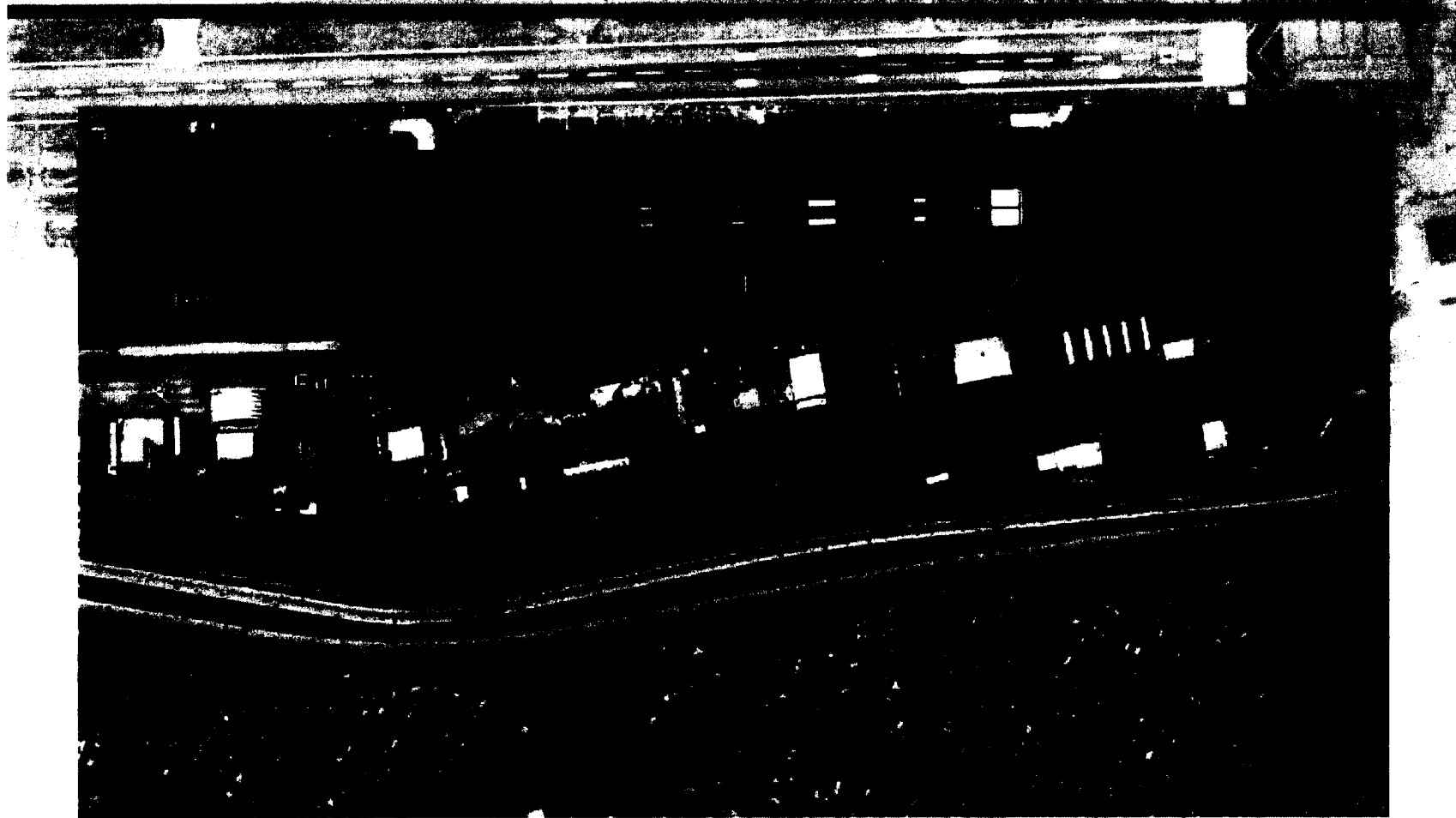
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## King County - Boeing Field



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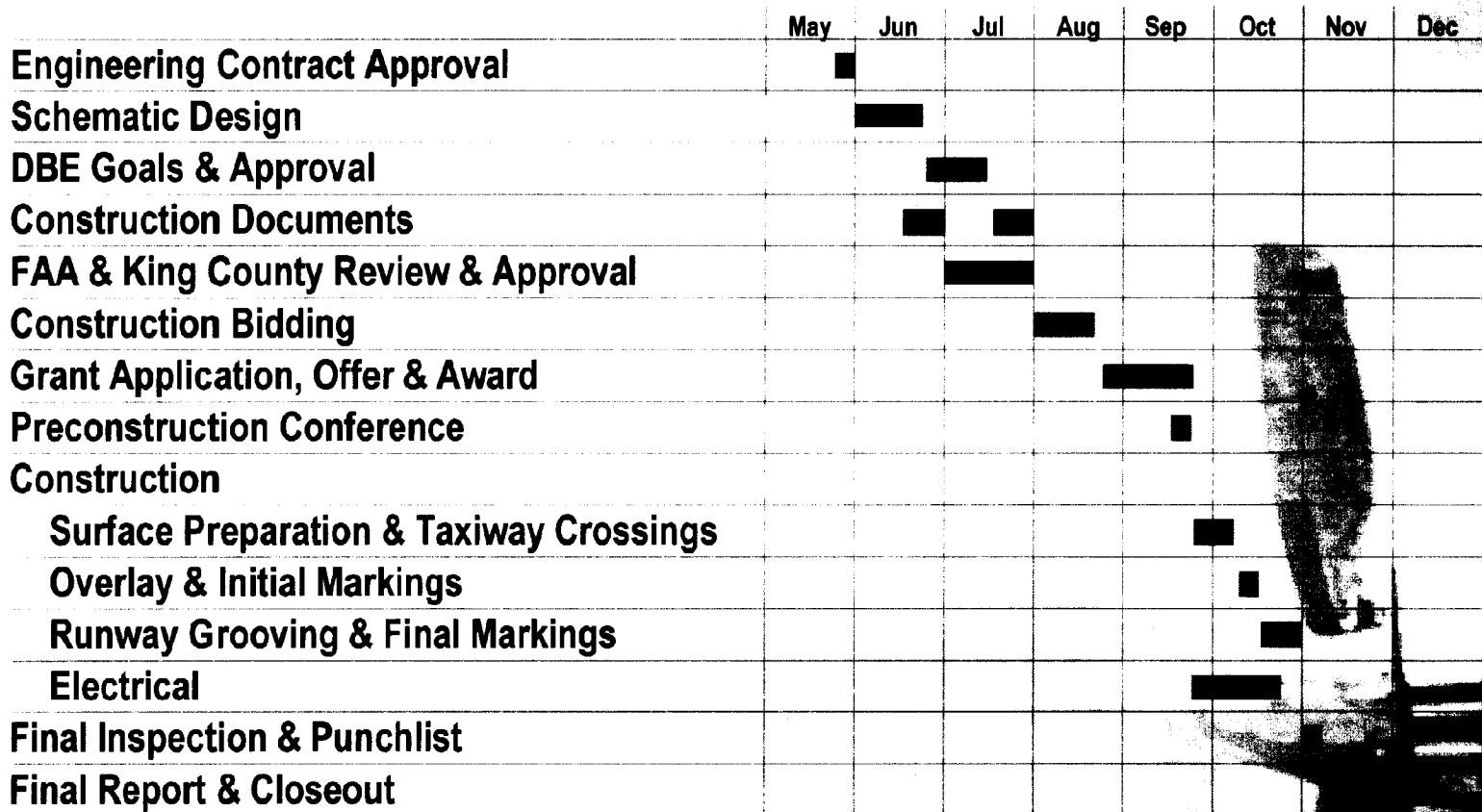
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### 3. Project Challenges

#### Schedule



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## **W&H Pacific Team Benefits**

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- **Vast airport project management and construction management experience**
- **Successful construction phasing at airports**
- **Strong working relationship with FAA**
- **Professional airport engineers ready and eager to work on your project**

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